

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1-15. (Canceled)

16. (Previously presented) An interface module usable in a system for forwarding packets, comprising:

an ingress port for receiving an incoming stream of data packets;

a switchover unit, when a group of three or more forwarding planes are connectable to the interface module the switchover unit being configured to select two forwarding planes of the group;

a transfer unit configured to transmit the data packets contained in the received incoming stream to each of two forwarding planes connectable to the interface module or the selected two forwarding planes, wherein identical state information is maintained in the two forwarding planes or the selected two forwarding planes based upon state information obtained from the transmitted data packets; and

an egress port for transmitting an outgoing stream of data packets,

wherein the switchover unit is configured to select one of the two forwarding planes or the selected two forwarding planes and to form the outgoing stream of data packets from data packets received from the selected forwarding plane.

17. (Previously presented) The interface module of claim 16, wherein the switchover unit selects one of the two forwarding planes or the selected two forwarding planes in response to receipt of a signal indicating the status of one or more of the two forwarding planes or the selected two forwarding planes.

18. (Previously presented) A system for forwarding packets, comprising:
a set of forwarding planes that includes first and second forwarding planes configured to receive packets from a plurality of interface modules and transmit received packets to a plurality of interface modules;

a controller to designate the first and second forwarding planes when the set includes three or more forwarding planes, wherein the first and second forwarding planes maintain identical state information based upon state information obtained from the received packets; and

a first interface module coupled to the first and second forwarding planes, the first interface module receiving packets contained in an incoming stream at an ingress port and transmitting the packets to the first forwarding plane and the second forwarding plane, the first interface module further receiving packets from each of the first and second forwarding planes and transmitting at an egress port packets from a selected one of the first and second forwarding planes.

19. (Original) The system of claim 18, further comprising:
a routing engine, coupled to each of the first and second forwarding planes, for computing route information using routing protocols.

20. (Previously presented) The system of claim 19, wherein each of the first and second forwarding planes forwards received packets for transmission based on address information contained in respective packets and route information computed by the routing engine.

21. (Previously presented) The system of claim 18, wherein the first interface module selects one of the first or second forwarding planes in response to a signal indicating the status of one or more of the forwarding planes.

22. (Previously presented) The system of claim 19, wherein the state information comprises configuration information associated with the routing engine.

23. (Previously presented) The system of claim 18, wherein the received packets comprise at least one of data packets or control packets.

24. (Currently amended) The ~~apparatus~~ system of claim ~~[[1]]~~ 18, wherein the state information ~~obtained from the data packets~~ comprises historical state information.

25 and 26. (Canceled)

27. (New) A network device, comprising:
three or more packet forwarding engines (PFEs) configured to receive packets from and transmit packets to at least one of a plurality of interface modules;

a controller to designate a first one of the PFEs and a second one of PFEs; and
a first one of the interface modules coupled to the first and second PFEs, the first interface module to:
receive at least one packet contained in an incoming stream at an ingress port,
transmit the at least one packet to the first PFE and the second PFE, wherein the first and second PFEs maintain identical state information associated with the at least one packet,
receive packets from each of the first and second PFEs, and
transmit, at an egress port of the network device, selected ones of the received packets from one of the first PFE or the second PFE.

28. (New) The system of claim 27, further comprising:
a routing engine coupled to each of the first and second PFEs, the routing engine to compute route information using routing protocols.

29. (New) The system of claim 28, wherein each of the first and second PFEs is configured to forward received packets for transmission based on address information contained in respective packets and route information computed by the routing engine.

30. (New) The system of claim 28, wherein the state information comprises configuration information associated with the routing engine.

31. (New) The system of claim 27, wherein the controller designates one of the first or second PFEs in response to a signal indicating the status of one or more of the PFEs.

32. (New) The system of claim 27, wherein the received packets comprise at least one of data packets or control packets.

33. (New) The apparatus of claim 27, wherein the state information comprises historical state information.

34. (New) In a network device including a group of three or more packet forwarding engines (PFEs) configured to receive packets from and transmit packets to at least one of a plurality of interface modules coupled to the first and second PFEs, a method comprising:

selecting a first PFE and a second PFE of the group of PFEs;

receiving, by the at least one interface module, at least one packet contained in an incoming stream at an ingress port of the network device;

transmitting the at least one packet to the first PFE and the second PFE;

maintaining, in the first and second PFEs, identical state information associated with the at least one packet;

receiving, at the at least one interface module, packets from each of the first and second PFEs; and

transmitting, by the at least one interface module, selected ones of the received packets from one of the first PFE or the second PFE at an egress port of the network device.

35. (New) The method of claim 34, wherein the network device further includes a routing engine coupled to each of the first and second PFEs, the method further comprising:

computing route information using routing protocols.

36. (New) The method of claim 35, wherein each of the first and second PFEs forwards received packets for transmission based on address information contained in respective packets and route information computed by the routing engine.

37. (New) The method of claim 34, wherein the first interface module selects the first and second PFEs in response to a signal indicating a status of one or more PFE of the group.

38. (New) A network device including a set of three or more packet forwarding engines (PFEs) configured to receive packets from and transmit packets to at least one of a plurality of interface modules coupled to the first and second PFEs, the network device comprising:

means for selecting a first PFE of the set of PFEs and a second PFE of the set of PFEs;

means for receiving, by the at least one interface module, at least one packet contained in an incoming stream at an ingress port of the network device;

means for transmitting the at least one packet to the first PFE and the second PFE;

means for maintaining, in the first and second PFEs, identical state information associated with the at least one packet;

means for receiving, at the at least one interface module, packets from each of the first and second PFEs; and

means for transmitting, by the at least one interface module, selected ones of the received packets from one of the first PFE or the second PFE at an egress port of the network device.